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FISCAL IMPACT STATEMENT

LS 6573
BILL NUMBER: HB 1063

NOTE PREPARED: Feb 16, 2010
BILL AMENDED: Feb 16, 2010

SUBJECT: Energy Efficient Buildings.

FIRST AUTHOR: Rep. Pierce
FIRST SPONSOR: Sen. Gard

BILL STATUS: CR Adopted - 2nd House

FUNDS AFFECTED: X **GENERAL**
DEDICATED
FEDERAL

IMPACT: State & Local

Summary of Legislation: (Amended) This bill requires that certain government buildings be built to achieve maximum energy efficiency to the extent this can be accomplished on a cost-effective basis, considering construction and operating costs over the life cycle of the building. It requires the Department of Administration to develop design standards that require analysis of cost effectiveness, and provides that energy efficiency may be demonstrated through design that achieves a certain energy efficiency rating.

The bill also requires that certain government buildings be designed, renovated, or reconstructed to achieve maximum energy efficiency to the extent this can be accomplished on a cost-effective basis, considering construction and operating costs over the life cycle of the building. It provides that the design, renovation, or reconstruction may be based on certain energy efficiency rating systems. It excepts political subdivisions and school corporations from the renovation requirements.

The bill requires in the determination of cost effectiveness that value be afforded to the historic or aesthetic qualities of the government building and to the availability of local materials. The bill provides that Indiana hardwood lumber may be considered for use as a local source material in any project in which the use of Indiana hardwood lumber is practicable. It also recognizes a 2006 timberland study.

Effective Date: July 1, 2010.

Explanation of State Expenditures: (Revised) *Indiana Department of Administration (IDOA)*: The bill requires the IDOA to develop design standards promoting energy efficiency that will be used in the construction of new government buildings. The IDOA must also determine the cost effectiveness of the design and construction associated with achieving energy efficiency for all newly constructed government

buildings. Due to the Governor's Executive Order 08-14, these provisions are not expected to impact expenditures. The executive order provides that the construction, repair, or renovation of state buildings must achieve energy efficiency on a cost-effective basis.

(Revised) *Construction and Renovation of Government Buildings*: Under this bill, a project approved after June 30, 2010, for the construction of a government building or structure that would cost at least $500,000 and consist of at least 5,000 square feet of floor space must be designed, constructed, operated, and maintained to achieve maximum energy efficiency on a cost-effective basis. Major renovations of government buildings would also be subject to the bill's requirements, except for those buildings or structures listed or eligible for listing on the National Register of Historic Places.

The long-term impact is the extent to which potential savings in operating costs (such as heating, water, and electricity) offset any initial increase in construction or renovation costs. The potential long-term savings are indeterminable at this time, and would be addressed by the IDOA when making determinations based upon cost-effectiveness. Any additional costs and operating cost savings associated with utilizing energy efficiency techniques in construction and renovation will vary depending on the project and the resources available.

(Revised) *Additional Details and Background Information - Bill Requirements*: This bill provides that the IDOA shall develop standards for all newly constructed government buildings to achieve maximum energy efficiency on a cost-effective basis. Energy efficiency may be demonstrated through design that achieves the level of energy efficiency determined under any of the following:

(1) LEED Silver Rating;
(2) Green Building Initiative's Two Globes Rating;
(3) Environmental Protection Agency's Energy Star rating; or
(4) any equivalent rating accredited by the American National Standards Institute.

Projects that cost less than $500,000, as well as buildings or structures that are either listed or eligible to be listed on the National Register of Historic Places are exempted from meeting the energy efficiency requirement of this bill.

State Buildings Meeting Energy Efficient Standards: Five state buildings have received LEED certification, including three buildings at Madison State Hospital (Southeast Regional Treatment Center), the Isaac Ray Treatment Center at Logansport State Hospital (received silver certification), and the Indiana Forensic & Health Sciences Laboratories.

LEED Rating System: According to the U.S. Green Building Council's website, the LEED rating system was created to provide the building industry with consistent, credible standards for what constitutes a green building. The rating is determined by earning points in a number of categories, including sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation in design. Projects are awarded Certified, Silver, Gold, or Platinum certification depending on the number of benchmarks met. LEED informational material available on the website indicates that an initial investment of 2% in green building design, on average, will result in life cycle savings of 20% of the total construction costs.

Green Building Initiative's Rating System: To achieve the Green Building Initiatives Two Globes rating, a building must be assessed by an independent third party that is affiliated with the Green Building Initiative. Out of 1,000 points possible, the building must achieve 550-690 (55%-69%) of the points to be recognized

with two green globes. The most globes a building can receive is four. Areas evaluated include energy, indoor environment, emissions, resources, environmental management, and water.

Energy Star Rating: The Energy Star is awarded to buildings that achieve a rating of 75 or higher using an Internet tool provided by the Environmental Protection Agency's Energy Star website. Areas evaluated include energy and water consumption and energy performance. After the required rating is achieved, the next step is a verification process.

Energy Efficiency Executive Order: Executive Order 08-14 has the following provisions:

All new state buildings shall be designed, constructed, operated, and maintained to achieve maximum energy efficiency to the extent this can be accomplished on a cost-effective basis, considering construction and operating costs over the life cycle of the building.

The IDOA shall use the goal of achieving energy efficiency for the design of all buildings that require a cost-effectiveness analysis, and design repairs and renovations of existing buildings to achieve the maximum energy efficiency on a cost-effective basis.

Efficiency may be demonstrated by achieving the silver rating under the LEED rating system; the two globes rating under the Green Globes rating system; the Environmental Protection Agency's ENERGY STAR®; or an equivalent under a rating system that is accredited by the American National Standards Institute.

Historic aesthetic and local-sourced materials shall be afforded value in the cost analysis for repairs and renovations, and Indiana hardwood lumber should be considered for all projects where practicable as a local source material.

Explanation of State Revenues:

Explanation of Local Expenditures: (Revised) The provisions of this bill concerning new construction and major renovations of government buildings will apply to local governments. However, the bill exempts political subdivisions and school corporations from the bill's renovation requirements.

Explanation of Local Revenues:

State Agencies Affected: IDOA; All.

Local Agencies Affected: All.

Information Sources: Tom Coulter, IDOA, 317-232-3001; U.S. Green Building Council, http://www.usgbc.org/; The Green Building Initiative, http://www.thegbi.org/home.asp; Environmental Protection Agency's Energy Star Website, http://www.energystar.gov/; American Society of Heating, Refrigerating, and Air Conditioning Engineers, http://www.ashrae.org/; Kats, Gregory H., Leon Alevantis, Adam Berman, Evan Mills, Jeff Perlman, "The Costs and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Task Force", October, 2003; U.S. Green Building Council, Chicago Chapter, *Regional Green Building Case Study Project: A Post-Occupancy Study of LEED Projects in Illinois*, Fall 2009; Davis Langdon, "Cost of Green Revisited: Reexamining the Feasibility and Cost Impact of Sustainable Design in the Light of Increased Market Adoption." July 2007 1-25; Syphers, Geof, et al. "Managing the Cost of Green Building," KEMA, 2003.

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